ABSTRACT AMENDMENTS

Rewrite the abstract as follows:

~~An interleaver or deinterleaver convolutionally interleaves or deinterleaves an incoming word sequence to form an outgoing word sequence. The interleaver or deinterleaver includes an external memory read and write accessed by a direct memory access controller for storing bytes forming words of the incoming word sequence until the bytes are needed to form words of the outgoing sequence. The interleaver uses a cache memory to store bytes of a next set of outgoing sequence words. The interleaver initially writes bytes of each incoming word to the external memory and also writes some bytes of the incoming words directly to the cache memory when they are to form parts of the outgoing sequence words currently stored in the cache memory. The interleaver transfers bytes from the main memory to the cache memory when the bytes are needed to form a next set of output sequence words. The deinterleaver stores bytes of incoming words in its cache memory until the cache memory is filled and then DMA transfers them to the external memory. The deinterleaver forms words of the output sequence from bytes it obtains from both its cache memory and its external memory.~~

An apparatus for receiving and storing an incoming sequence and for forwarding the bytes of the incoming sequence as an outgoing sequence in a different byte order includes a cache memory and a main memory for storing bytes of the incoming sequence until they can be forwarded as bytes of the outgoing sequence. A control circuit selectively burst mode writes sequences of incoming bytes that need be stored for a relatively long time to blocks of sequential addresses of the main memory, writes individual bytes of the incoming sequence that need be stored for a relatively short time to selected addresses of the cache memory, and reads bytes out of the cache memory and the main memory when needed to form the outgoing sequence.